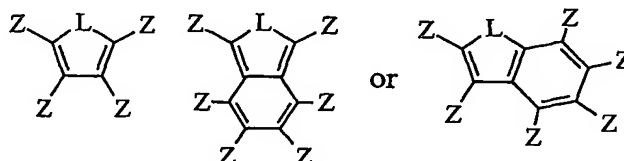


## WHAT IS CLAIMED IS:

1. A compound comprising i) three or more dienophile groups (A-functional groups) and ii) a single ring structure comprising two conjugated carbon-to-carbon double bonds and a leaving group L (collectively referred to as a B-functional group), characterized in  
 5 that one A-functional group of one molecule of the compound is capable of reaction under cycloaddition reaction conditions with the B-functional group of a second molecule and elimination of the leaving group L, to thereby form a polymer.

2. A compound according to claim 1 corresponding to the formula,



10 wherein L is -O-, -S-, -N=N-, -(CO)-, -(SO<sub>2</sub>)-, or -O(CO)-;

Z is independently in each occurrence -W-(C≡C-Q)<sub>q</sub>, hydrogen, halogen, an unsubstituted or inertly substituted aromatic group, an unsubstituted or inertly substituted alkyl group, or two adjacent Z groups together with the carbons to which they are attached form a fused aromatic ring;

15 W is an unsubstituted or inertly substituted C<sub>6-20</sub> aromatic group,

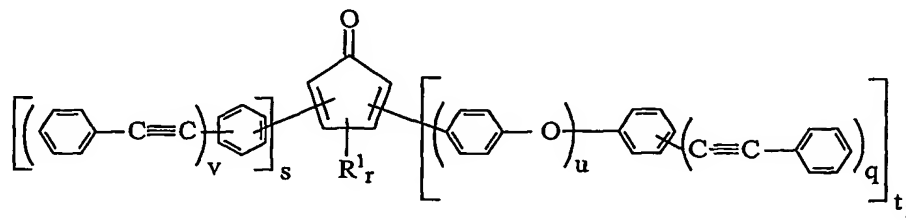
Q is hydrogen, an unsubstituted or inertly substituted C<sub>6-20</sub> aryl group, or an unsubstituted or inertly substituted C<sub>1-20</sub> alkyl group;

q independently each occurrence is an integer from 1 to 3; and

the number of Z substituents and q are selected to provide a total of from 3 to 10

20 -C≡C-Q groups.

3. A compound according to claim 1 corresponding to the formula:



wherein R<sup>1</sup> is hydrogen, C<sub>6-20</sub> aryl or inertly substituted aryl;

q is a number from 1 to 3;

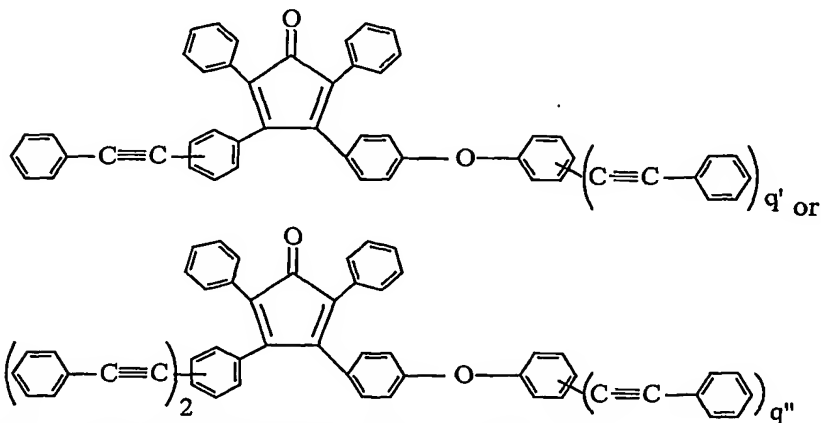
25 r is a number from 0 to 3;

u is 0 or 1;

v is a number from 1 to 3;

s and t are numbers from 1 to 4, and (v-s) + (q-t) is a number greater than or equal to 3; and r+s+t=4.

4. A compound according to claim 1 corresponding to the formula:



where q' is a number from 2 to 3 and q'' is a number from 1 to 3.

5. A compound according to claim 1 selected from the group consisting of:

2-(4-phenylethynylphenyl)-3,4-di((4-phenylethynyl)-4-phenoxyphenyl)-5-phenyl-2,4-cyclopentadienone,

2,5-di-(4-phenylethynylphenyl)-3,4-di((4-phenylethynyl)-4-phenoxyphenyl)-2,4-cyclopentadienone,

2,3,4-tri-(4-phenylethynylphenyl)-5-phenyl-2,4-cyclopentadienone,

2,3,4,5-tetrakis-(4-phenylethynylphenyl)-2,4-cyclopentadienone,

2,5-bis-(3,5-di(phenylethynyl)phenyl)-3,4-bis[4-(4-phenylethynyl)phenoxyphenyl]-2,4-cyclopentadienone,

2,5-bis-(3,5-di(phenylethynyl)phenyl)-3,4-bis[4-(4-phenylethynyl)phenyl]-2,4-cyclopentadienone,

2,5-diphenyl-3-[4-(2,4,6-tris(phenylethynyl)phenoxy)phenyl]-5-(3,5-bis(phenylethynyl)phenyl)-2,4-cyclopentadienone, and

2,5-diphenyl-3-[4-(4-(phenylethynyl)phenoxy)phenyl]-5-(3,5-bis(phenylethynyl)phenyl)-2,4-cyclopentadienone.

6. A spin-coatable, curable composition comprising a monomer according to any one of claims 1-5, an optional solvent, and an optional pore forming material.

7. A method of forming an insulating film on an electrical device comprising coating the device with a composition according to claim 6, removing the optional solvent, curing the monomer, and optionally removing the optional pore forming material.

8. An electrical device comprising an insulating film prepared according to claim
- 7.